









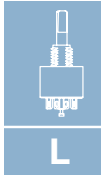


Rotary Switches

Product Selection Guide

Rotary										
Series	A	RTA	M	RBP12	RTBH	RTBV	R	F	H	P
Switch Type	Multi-pole/ Multi-position	Multi-pole/ Multi-position	Half-inch	Multi-pole/ Multi-position	Right-angle Sealed	Right-angle Sealed	Rota-slide	Rota-slide	Power Rota-slide	Key Switch
Miniature		•		•				•		
Low Profile				•				•		•
Screwdriver Slot	•	•		•	•	•	•	•		
Illumination										
Power									•	
Maximum Current	2.5 Amps	150 mA	6 Amps	130 nA			5 Amps	4 Amps	12 Amps	4 Amps
Momentary										•
Poles	1-4	1-4	1 & 2	1-6			1 & 2	1 & 2	1 & 2	1 & 2
Indexing	30°, 45°, 90°		30° & 36°		15,22,5,36		36°	45° & 90°	45° & 90°	45° & 90°
Splashproof	•		•		•	•				
Sealed					•	•				
Non-shorting/ Shorting Contacts	•		•	•						
Panel Mount Options										
Front Mount										•
Rear Mount	•	•	•		•	•	•	•	•	
PCB Mount Options										
Vertical	•	•	•	•		•	•	•		•
Terminations										
Solder Lug	•	•	•				•	•	•	•
Wire Lead							•	•	•	•
Quick Connect										
PC	•	•	•	•	•	•	•	•		
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Rotary



Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

A Series 1-4 Pole Rotary Switches

Features/Benefits

- Multi-pole and multi-position
- Positive detent
- Shorting & non-shorting contacts
- Panel and PCB mounting
- RoHS Compliant



Typical Applications

- Automotive
- Major and small appliances
- Industrial equipment



Specifications

CONTACT RATING: Q contact material: Switch - 2.5 AMPS @ 125 V AC; 350 mA @ 125 V DC (UL/CSA). Carry - 5 AMPS continuous. See page L-6 for additional ratings.

ELECTRICAL LIFE: 15,000 make-and-break cycles at full load up to 300,000 detent operations.

CONTACT RESISTANCE: Below 20 m Ω typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE: 10⁹ Ω min.

DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level.
Operating and storage temp: -30° to 85°C

OPERATING & STORAGE TEMPERATURE: -30°C to 85°C

NOTE: Any models supplied with Q, B or G contact material are RoHS compliant.

NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

Materials

HOUSING & BUSHING: Glass filled 6/6 nylon (UL 94V-0).

ACTUATOR: Glass filled 6/6 nylon (UL 94V-0).

MOVABLE CONTACTS: Q contact material: Coin silver, silver plated.
See page L-6 for additional contact materials.

STATIONARY CONTACTS & TERMINALS: Q contact material: Brass, silver plated. See page L-6 for additional contact materials.

HARDWARE: Nut - zinc, nickel plated. Lockwasher — steel, bright zinc plated. Stop Ring - brass, nickel plated.

TERMINAL SEAL: Epoxy.

Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages L-4 through L-7. For additional options not shown in catalog, consult Customer Service Center.

Switch Function

- A100 SP, 30° Index, 12 pos. no stops
- A102 SPDT, 30° Index
- A103 SP, 30° Index, 3 pos.
- A104 SP, 30° Index, 4 pos.
- A105 SP, 30° Index, 5 pos.
- A106 SP, 30° Index, 6 pos.
- A107 SP, 30° Index, 7 pos.
- A108 SP, 30° Index, 8 pos.
- A109 SP, 30° Index, 9 pos.
- A110 SP, 30° Index, 10 pos.
- A112 SP, 30° Index, 12 pos.
- A114 SP, 90° Index, 2 pos.
- A115 SP, 45° Index, 3 pos.
- A124 SP, 90° Index, 4 pos.
- A125 SP, 45° Index, 8 pos.
- A203 DP, 30° Index, 3 pos.
- A204 DP, 30° Index, 4 pos.
- A205 DP, 30° Index, 5 pos.
- A206 DP, 30° Index, 6 pos.
- A214 DP, 90° Index, 2 pos.
- A303 3P, 30° Index, 3 pos.
- A304 3P, 30° Index, 4 pos.
- A402 4PDT, 30° Index
- A403 4P, 30° Index, 3 pos

Actuator

- 15 1.500" high, flatted
- 03 .375" high, flatted
- 05 .500" high, flatted
- 14 1.500" high, flatted
- 42 1.654" high, metric
- S1 Screwdriver Slot

Mounting Style

- R 3/8-32 threaded
- M M10 x .75 metric

Shorting/Non-shorting Contacts

- N Non-shorting contacts
- S Shorting contacts
(Not available with models A114, A124 & A214)

Terminations

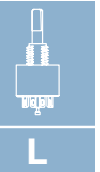
- Z Solder lug
- C PC Thru-hole
- MC Modular base

Contact Material

- Q Silver
- B Gold
- G Gold over silver

Seal

- NONE No seal
- E Epoxy seal
- F Splashproof bushing seal
- K Epoxy & splashproof bushing seal



Rotary



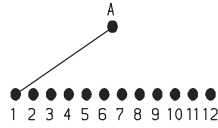
Dimensions are shown: Inch (mm)
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A Series 1-4 Pole Rotary Switches

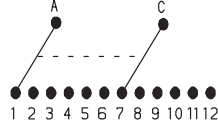
SWITCH FUNCTION

30° INDEXING			
NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
SP	A100	12 Position No Stops	A,1-12
	A102	SPDT	A,1,2*
	A103	3 Position	A,1-3*
	A104	4 Position	A,1-4*
	A105	5 Position	A,1-5*
	A106	6 Position	A,1-6*
	A107	7 Position	A,1-7
	A108	8 Position	A,1-8
	A109	9 Position	A,1-9
	A110	10 Position	A,1-10
A112	12 Position	A,1-12	
DP	A203	3 Position	A,C,1-3,7-9
	A204	4 Position	A,C,1-4,7-10
	A205	5 Position	A,C,1-5,7-11
	A206	6 Position	A,C,1-12
3P	A303	3 Position	A,B,C,1-3,5-7,9-11
	A304	4 Position	A,B,C,1-12

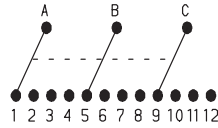
SP MODELS SCHEMATIC



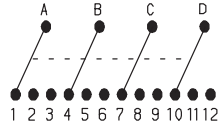
DP MODELS SCHEMATIC



3P MODELS SCHEMATIC



4P MODELS SCHEMATIC

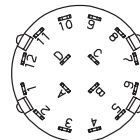


30° INDEXING			
NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
4P	A402	4PDT	A,B,C,D,1,2,4,5,7,8,10,11
	A403	3 Position	All Terminals

45° INDEXING			
NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
SP	A115	3 Position	A,1,2,4*
	A125	8 Position	A,1,2,4,5,7,8,10,11

90° INDEXING			
NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
SP	A114	2 Position	A,1,4*
	A124	4 Position	A,1,4,7,10
DP	A214	2 Position	A,C,1,4,7,10

TERMINAL NUMBERS



Terminal numbers molded on bottom of housing.

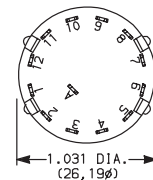
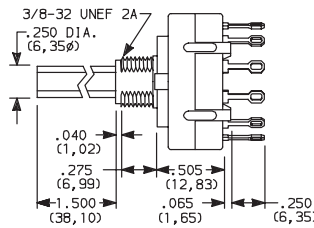
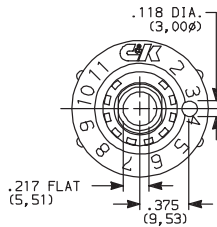


3P MODELS

4P MODELS
SP MODELS (omit terminals B, C & D)
DP MODELS (omit terminals B & D)

NOTE: * These models with 'C' or 'MC' terminations have additional terminal no. 9 as switch support only. This terminal is not connected electrically inside switch.

All models with all options when ordered with 'G' or 'Q' contact material, see page L-6.



TERM. NOS. MOLDED ON HOUSING



Third Angle Projection

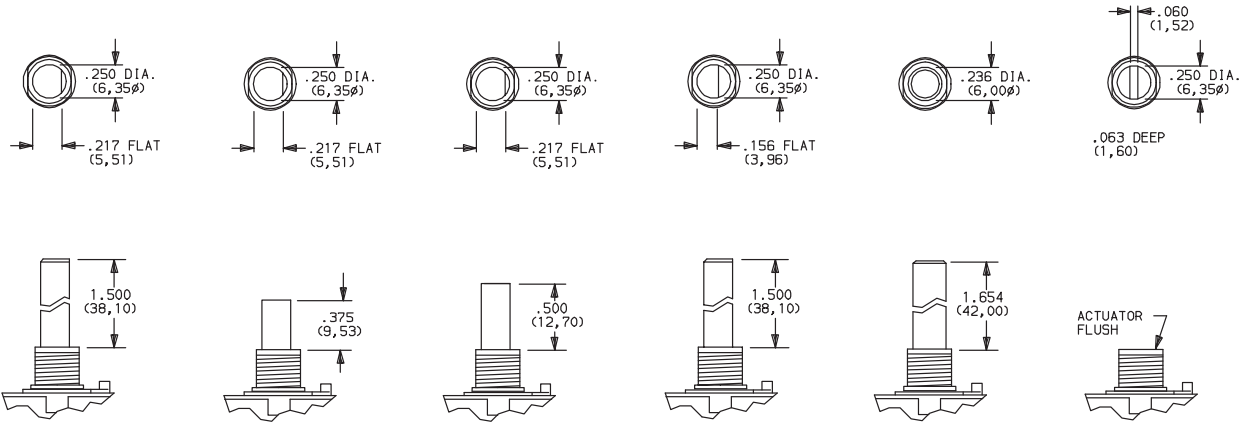
Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change



A Series 1-4 Pole Rotary Switches

ACTUATOR

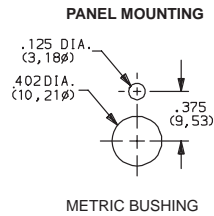
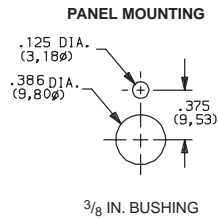
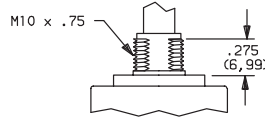
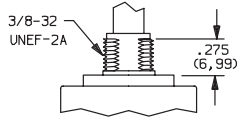
- 15** 1.500" HIGH **03** .375" HIGH **05** .500" HIGH **14** 1.500" HIGH **42** 1.654" METRIC **S1** SCREWDRIVER SLOT



NOTE: Actuators shown in position 1, fully CCW.

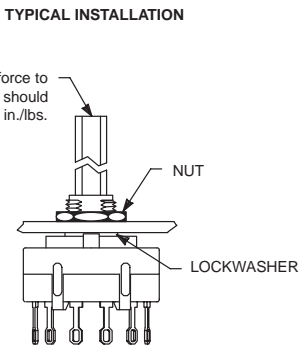
MOUNTING STYLE

- R** 3/8-32 THREAD **M** M10 x .75 METRIC



TYPICAL INSTALLATION

Maximum force to push on knob should not exceed 10 in./lbs.



Install switch with stop ring (if used) and lockwasher in back of panel. Tighten hex nut from front of panel.

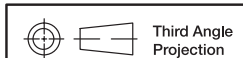
On PC mounted switches, use hex nut and lockwasher to hold stop ring in place.

Actuation torque: 8-16 oz./in.
Maximum torque: 30 oz./in.

SHORTING/NON-SHORTING CONTACTS

- N** NON-SHORTING CONTACTS (break-before-make)
S SHORTING CONTACTS (make-before-break)

NOTE: 'S' shorting contacts are not available with A114, A124 and A214 models.



Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change



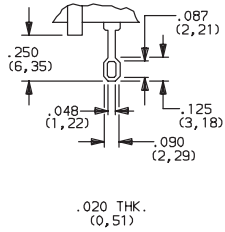
Rotary



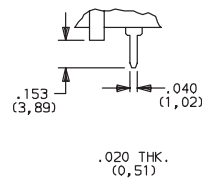
A Series 1-4 Pole Rotary Switches

TERMINATIONS

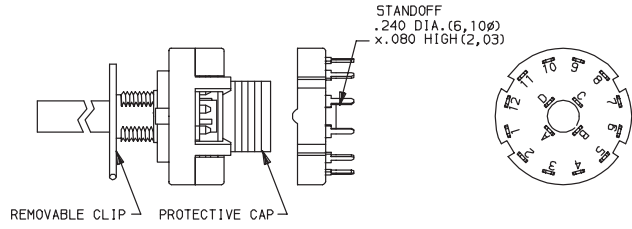
Z SOLDER LUG



C PC THRU-HOLE

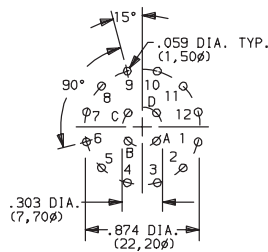


MC MODULAR BASE (for wave soldering)

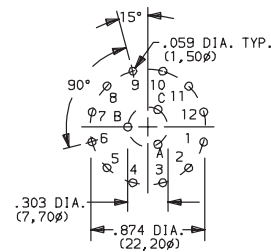


NOTE: Switches with 'C' or 'MC' terminations have additional terminal no. 9 as switch support only. This terminal is not connected electrically inside switch. Solder and clean switch base on PC board with other components, then snap on housing/actuator assembly. See page L-7 for installation instructions.

PC MOUNTING



4P MODEL
SP MODEL (omit terminals B, C & D)
DP MODEL (omit terminals B & D)



3P MODEL

CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATING	
Q	SILVER ²	POWER	SWITCH-2.5 AMPS @ 125 V AC; 350 mA @ 125V DC (UL/CSA). CARRY-5 AMPS CONTINUOUS.
B	GOLD ¹	LOW LEVEL/DRY CIRCUIT	0.4 VA MAX. @ 20 V AC or DC MAX
G	GOLD OVER SILVER ³	LOW LEVEL/DRY CIRCUIT OR POWER	0.4 VA MAX. @ 20 V AC or DC MAX. or SWITCH-2.5 AMPS @ 125 V AC; 350 mA @ 125 V DC (UL/CSA). CARRY-5 AMPS CONTINUOUS.

* Note: See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.

¹ MOVABLE CONTACTS: Copper alloy, with gold plate over nickel plate.
STATIONARY CONTACTS & TERMINALS: Brass, with gold plate over nickel plate.

² MOVABLE CONTACTS: Coin silver, silver plated.
STATIONARY CONTACTS & TERMINALS: Brass, silver plated (standard with all termination options).

³ MOVABLE CONTACTS: Coin silver, with gold plate over nickel plate over silver plate.
STATIONARY CONTACTS & TERMINALS: Brass, with gold plate over nickel plate over silver plate.

NOTE: Any models supplied with Q, B or G contact material are RoHS compliant.

All models with all options when ordered with 'G' or 'Q' contact material.

NOTE: 'G' contact material is equivalent to both 'B' and 'Q' contact materials.



Third Angle
Projection

Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

C&K

Rotary